

**Confirmed Minutes of the 250th Meeting
of the Advisory Council on the Environment (ACE)
on 8 November 2021 at 2:30 p.m.**

Present:

Mr Stanley WONG, SBS, JP (Chairman)
Prof Nora TAM, BBS, JP (Deputy Chairman)
Ms Carmen CHAN, BBS, JP
Ms Sylvia CHAN, MH
Ms Ada FUNG, BBS
Ir Samantha KONG
Ms LAM Chung-yan
Prof Alexis LAU, JP
Ms Julia LAU
Prof Kenneth LEUNG, JP
Dr MA Kwan-ki
Dr Jeanne NG
Dr SUNG Yik-hei
Ms Christina TANG
Mr Simon WONG, BBS, JP
Dr Raymond YAU
Mr Owin FUNG, JP (Secretary)

Absent with Apologies:

Prof LAU Chi-pang, BBS, JP
Dr Winnie LAW
Mr Andrew LEE
Dr WONG Kwok-yan, MH
Prof WONG Sze-chun, BBS, JP

In Attendance:

Mr Simon CHAN	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Ms Maggie CHIN	Assistant Director of Planning / Technical Services, Planning Department
Ms Fanny HUI	Chief Information Officer, Environmental Protection Department (EPD)
Ms Becky LAM	Chief Executive Officer (CBD), EPD

Miss Sally SHEK Executive Officer (CBD) 1, EPD
Miss Ingrid SUEN Executive Officer (CBD) 2, EPD

In Attendance for Item 3:

Mr Terence TSANG Assistant Director (Environmental Assessment), EPD
Mr Victor YEUNG Principal Environmental Protection Officer (Regional Assessment), EPD

Study Team

Civil Engineering and Development Department
Mr Michael Fong, Head of the Sustainable Lantau Office
Mr Raymond IP, Deputy Head of the Sustainable Lantau Office (Works)
Ms Ellen CHENG, Chief Engineer/ Lantau 4
Mr William YEUNG, Senior Engineer/ 12 (Lantau)

Planning Department

Mr NG Kim-wai, Chief Town Planner/ Studies and Research 2
Ms Helen WAN, Senior Town Planner/ Studies and Research 8

Ove Arup & Partners Hong Kong Limited

Mr James SZE, Project Manager (P&E Study)
Mr Franki CHIU, Team Leader (Environmental)
Dr Bruce CHONG, Team Leader (Smart, Green and Resilient)

ERM-Hong Kong, Limited

Mr Terence FONG, Partner

Action

The Chairman welcomed Members to the meeting and informed that apologies of absence had been received from Prof Lau Chi-pang, Dr Winnie Law, Mr Andrew Lee, Dr Wong Kwok-yan and Prof Wong Sze-chun.

Item 1 : Confirmation of the draft minutes of the 249th meeting held on 11 October 2021 (Closed-door session)

2. The draft minutes of the last meeting were confirmed with proposed amendments in paragraph 15 from a Member. The draft minutes were endorsed by the meeting with no further amendments.

Item 2 : Matters arising (Closed-door session)

3. There were no matters arising from the minutes of the last meeting.

Item 3 : Study on the Artificial Islands in the Central Waters

(ACE Paper 20/2021)

4. The Chairman referred Members to *ACE Paper 20/2021* which briefed Members on the artificial islands in the Central Waters including the statutory environmental impact assessment (EIA) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). According to the paper, the artificial islands in the Central Waters was one of the initiatives under the Lantau Tomorrow Vision announced by the Chief Executive in the 2018 Policy Address to meet the long-term development needs of Hong Kong. The Civil Engineering and Development Department (CEDD) and the Planning Department (PlanD) jointly commenced a consultancy agreement on the “Artificial Islands in the Central Waters – Investigation” (the Study) and sought Members’ views on the Study and the proposed EIA.

5. A Member declared before the meeting that she was working at ARUP and was part of the project team working on the sustainability/carbon neutral area in relation to the project on Artificial Islands in the Central Waters. Given that no decision-making was required for this agenda item, the Chairman agreed that the Member could stay and participate in the discussion.

6. The Chairman declared that he was the Chairman of the Task Force on Land Supply in 2017 to 2019 and the development of “East Lantau Metropolis” was one of the recommendations put forward by the Task Force in the report submitted to the Government. A Member declared that he was engaged in projects commissioned by CEDD in relation to eco-seawalls. Another Member was involved in the preparation of the report on the Hong Kong 2030+. A Member declared that he was the former director of Ove Arup & Partners Hong Kong Limited. The meeting agreed that all concerned Members could continue to participate in the meeting and the discussion of this item.

(The presentation team joined the meeting at this juncture.)

Presentation cum Question-and-Answer Session (Open session)

7. Mr Michael Fong gave an opening remark. With the aid of a PowerPoint presentation, Mr James Sze briefed Members on the scope of the Study on the Artificial Islands in the Central Waters (the Study) and some preliminary findings and concepts on the proposed Kau Yi Chau Artificial Islands (KYC Artificial Islands).

Letters from Concern Groups

8. The Chairman referred to two letters in relation to the Study submitted by Peng Chau Reclamation Concern Group and Save Lantau Alliance, which had been copied to the Study Team before the meeting. Given the early stage of the Study, Mr Michael Fong responded that since the Study had been undertaken for less than five months, only some preliminary findings and concepts could be provided for Members' information at this stage. Notwithstanding, the Study Team would adopt a proactive approach to continuously gauge the views of different stakeholders on the project throughout the study process. As regards the aforesaid letters from the two concern groups, the Study Team would provide written responses to them after the meeting.

(Post-meeting notes: The replies of CEDD issued to the concern groups were passed to Members for reference on 25 November 2021.)

Hong Kong 2030+

9. A Member opined and another Member concurred that the reports of the Sustainability Assessment for Hong Kong 2030+ and Strategic Environmental Assessment for Hong Kong 2030+ should be released for public information. Mr Michael Fong explained that the Study Team was not in the position to respond to the subject as the two abovementioned assessments for Hong Kong 2030+ were under the purview of other colleagues in PlanD.

(Post-meeting notes: The Study Team had conveyed Members' views on the two technical assessments for Hong Kong 2030+ to relevant PlanD's colleagues after the meeting.)

Studies on the ecological assessment

10. The Chairman and two Members considered that ecological surveys of the area in vicinity of Kau Yi Chau should be accorded top priority for providing input to determine the reclamation extent and other details of the project. Mr Michael Fong agreed and responded that associated ecological and fisheries baseline surveys had commenced earlier than the established practice with a view to collecting information to ensure compliance with the standards and technical requirements stipulated in the EIAO. The Member further suggested and Mr Fong agreed to further brief ACE on the findings of the ecological surveys and the associated reclamation proposals when relevant information was available.

11. In addition to the findings on the ecological surveys, the Chairman and two Members suggested that the Study Team to brief ACE on the progress of the project at regular interval with a view to timely gauging Members' views. Mr Michael Fong undertook to arrange further briefings to ACE as and when appropriate.

12. In reply to a Member's enquiry on the proposed locations of sewage treatment works and effluent discharge point of the KYC Artificial Islands, Mr Michael Fong explained that the proposed locations of the sewage treatment works and effluent discharge point under reference were extracted from the tender document of the Study and were only for indicative purpose. The exact locations of the utilities and infrastructures including the sewage treatment works would be identified in the Study.

Environmental Impact Assessment

13. In view of the various planned and committed development projects in the pipeline, the Chairman enquired, on behalf of a Member who was unable to attend the meeting, the assessment of the potential negative impacts and the mitigation measures to address the natural and marine environment arising from all the projects. Two Members further suggested conducting a strategic environmental assessment (SEA) to assess the cumulative environmental impacts of all concurrent development projects in a holistic manner. Mr Michael Fong advised that the upcoming EIA studies would consider the implementation programmes of the KYC Artificial Islands, and assess the associated cumulative environmental impacts arising from other concurrent projects identified with a bearing on the

environmental acceptability of the KYC Artificial Islands in accordance with the requirements under the EIAO. The Study Team would work closely with EPD to ensure that all the environmental assessments would be conducted in accordance with statutory requirements.

14. A Member was concerned that the noise from the aircraft operation near the KYC Artificial Islands might generate adverse noise impacts to future residents on the islands. Mr Michael Fong advised that the environmental issues including noise impact would be assessed in details in the coming EIA studies in accordance with the EIAO.

15. Pointing out that the development of KYC Artificial Islands might bring more human disturbances and potential damage to the natural environment of the adjacent islands, a Member suggested that the Government should devise appropriate measures to strengthen the conservation of the adjacent islands. Mr Michael Fong considered that appropriate buffers between the KYC Artificial Islands and the adjacent islands would be provided. He supplemented that the Study Team would consider deploying appropriate measures to minimise any possible adverse impacts on the adjacent islands.

16. In response to a Member's question on the key environmental concern of this project, Mr Michael Fong considered that all environmental issues were equally important and advised that comprehensive environmental impact assessments would be carried out to assess any potential environmental impacts and propose appropriate mitigation measures accordingly.

Alternatives to Land Reclamation

17. In response to a Member's question on the location of the proposed artificial islands, Mr Michael Fong said that the scale and extent of KYC Artificial Islands would be recommended under the Study.

18. With reference to the experience of some overseas cities, a Member suggested the use of floating structures, which could be considered as an alternative for land reclamation, for providing a platform for artificial wetland as well as recreational facilities. The Chairman and another Member shared the Member's view and considered that the Government could draw reference from the experience of relevant overseas cities in exploring new technologies and

alternatives for reclamation to minimise the scale of reclaimed land as far as practical. Another Member considered that innovative and smart technologies should be adopted as early as in the planning stage of the project. A Member also suggested that the Government should consider conducting pilot trials for any new technologies to be deployed on KYC Artificial Islands. Mr Michael Fong thanked Members for the suggestions and agreed to take them into consideration where appropriate.

19. A Member was of the opinion that additional greening or open spaces should not be acquired at the expense of the marine environment. Another Member supported the idea that the Government might consider accommodating the government, institution and community (GIC) facilities and open spaces on the floating structures suggested by another Member with a view to minimising land reclamation.

20. Mr Ng Kim-wai pointed out the KYC Artificial Islands would be designed to accommodate a large population. Besides, the islands were aspired to provide a liveable and spacious living environment with enhanced GIC and open space provisions. Having said that, he agreed to also take into account Members' suggestions in determining the scale of reclamation for the project.

21. A Member suggested that the Government should conduct impact study to examine the effectiveness of the KYC Artificial Islands in addressing housing needs. She reminded that the Government should ensure that the development of KYC Artificial Islands should benefit the whole society instead of just the people living on the islands. The Chairman pointed out that apart from addressing housing needs, the development of KYC Artificial Islands would also serve as the third Core Business District and "Double Gateway" providing new economic opportunities and transport corridor. He considered that the Government should keep an open mind for both upward and downward adjustment of the reclamation extent based on consideration of the ecological, social and financial impacts.

22. A Member raised concerns about the sufficiency of fill materials for reclamation and the possible environmental impacts relating to the sources and the production of these fill materials. Mr Michael Fong advised that sufficient and steady supply of fill materials should be available by reusing public fill materials as well as importing from other economies. He supplemented that the Study Team would ensure that the imported fill materials would comply with the relevant

environmental regulations.

Ecological Impact

23. A Member considered that the urban forestry design such as streetscape canopies or balcony gardens were only greening works which would not be able to enhance the biodiversity. She suggested that the Study Team should devise detailed targets and plans for enhancing biodiversity and the associated mitigation measures for the potential loss of coral habitat due to reclamation. While the detailed planning on the measures to conserve the natural habitats and enhance biodiversity would be carried out under the Study, Mr Michael Fong assured that the Study Team would spare no efforts in conserving the environment.

24. In reply to a Member's enquiry on the proactive measures to conserve the marine environment and enhance biodiversity, Mr Michael Fong emphasised that the Study Team would accord high priority to environmental and biodiversity matters. Detailed conservation proposals would be formulated and examined in the Study.

Climate Resilience

25. On behalf of a Member, the Chairman enquired about the technical assessment on the possible climate change impacts in relation to the proposed artificial islands. Another Member further enquired about the technical assumptions regarding climate change adopted in the project and the design features of essential infrastructures for withstanding the problems arising from climate problems. Mr Michael Fong advised that the Study Team would keep in view the latest development on climate change issues in the Mainland and overseas. Close communications would also be made with the relevant departments such as Hong Kong Observatory with a view to incorporating climate resilient features in the project where appropriate.

26. In view of the global climate change and the extreme weather in recent years, a Member suggested with the support of three Members that climate resilient concept as well as blue-green infrastructure should be deployed in the design of the proposed artificial islands, particularly the underground structures, with a view to withstanding extreme weather. The Member suggested that the Government might draw reference from the climate resilient measures deployed in Miami and

engage the public and the private sectors on mitigating climate change in the project. Mr Michael Fong assured that the Study Team would take into account the impact of climate change and flooding risks in designing the underground structures of the artificial islands.

Carbon Neutrality

27. In response to a Member's enquiry about the plans to achieve carbon neutrality for the proposed artificial islands, Mr Michael Fong advised that the preliminary target was to achieve carbon neutrality of the artificial islands during the operational phase. Taking transport as an example, the possible initiatives for minimising carbon emissions might include the set-up of car-free/car-lite and pedestrian priority zones as well as cyclist friendly cycle track network to encourage cycling and walking within the artificial islands. Dr Bruce Chong supplemented that efforts could also be placed in energy saving and enhancing energy efficiency of utilities as well as increasing the use of renewable energy on the artificial islands. He added that deploying new zero-carbon energy such as hydrogen would be explored, while greening would be provided with a view to absorbing residual carbon.

28. A Member suggested that the Study Team should be required under the EIA study brief to provide a detailed calculation and concrete target on carbon emissions in the EIA report. Mr Michael Fong advised that the estimated carbon emissions of the KYC Artificial Islands would be examined in the Study and further details would be provided in due course. Another Member aspired that the Government should devise sustainability and carbon positive goals in this project.

Land Use Planning

29. In reply to a Member's question on the design concept of "15-minute neighbourhood", Mr Ng Kim-wai explained that the concept was to enable residents to reach open spaces, community facilities and their other daily needs within 15-minute walking or cycling distance from their homes in each neighbourhood. In response to another Member's question on the proposed living space per person, Mr Ng advised that the calculation of the living space per person shown in the PowerPoint presentation was based on the internal floor area.

Underground Structures

30. A Member was concerned about the design of the underground structures on reclaimed land. Two Members were concerned about the high cost and energy consumption for maintaining sufficient ventilation and lighting in the enclosed underground structures. The Member further suggested that natural lighting and ventilation for the underground structures should be adopted as far as possible. Mr Michael Fong responded that due consideration would be given to energy consumption in the planning of underground facilities within the artificial islands. Tentatively, the large scale and fully enclosed ones would only be provided in selective areas such as the Core Business District.

Transport

31. A Member suggested that the Government should cater for the needs of the different age groups in planning stage for the transport within the artificial islands since walking and cycling might not be suitable for the elderly. Another Member reminded that the transportation network should also cater for the need of essential and emergency services and alternative paths should be provided. Mr Michael Fong assured that the needs of different age groups and essential services would be taken into account in the design of the transportation network for the artificial islands.

32. A Member enquired about the proposed transportation mode within the KYC Artificial Islands. He further enquired whether a new EIA process would be required if the final transportation mode deviated from the original assumption set out in the EIA report. Mr Michael Fong advised that the transport arrangement of the artificial islands would be carefully examined in this Study, taking into consideration in the findings of the EIA studies.

Target Population

33. In response to a Member's question on the target population of the artificial islands, Mr Ng Kim-wai advised that the Study Team would draw reference from the population projections of the Census and Statistics Department. He assured that the design of KYC Artificial Islands would cater the different needs of the residents.

Public Engagement

34. Two Members enquired about the public consultation on the proposed development of KYC Artificial Islands. Another Member suggested that the Government should try to engage the future residents and workers of the KYC Artificial Islands with a view to addressing their needs.

District Cooling System

35. A Member was concerned about the energy efficiency of district cooling system and was of the view that passive design which allowed users to control and adjust the cooling system should be adopted. She further sought information on the effectiveness of district cooling system in energy saving in Hong Kong. Mr Michael Fong advised that district cooling system was an energy efficient air-conditioning system which proved to consume less electricity as compared to traditional air-conditioning systems.

(Post-meeting note: CEDD provided supplementary information, as extracted from EMSD website ¹, that District Cooling System is an energy-efficient air-conditioning system as it consumes 35% and 20% less electricity as compared with traditional air-cooled air-conditioning systems and individual water-cooled air-conditioning systems using cooling towers respectively.)

36. A Member shared that the use of treated effluent water for district cooling systems would bring less damage to the marine life as compared to the use of sea water. Mr Michael Fong thanked the Member for his sharing and agreed to take it into consideration in the detailed design of the project.

Funding Arrangement

37. A Member enquired about the financial arrangement of the project. Another Member suggested that an upper limit of funding should be imposed with a view to reducing the burden on public finances and assuring financial sustainability. Mr Michael Fong advised that a preliminary cost estimate and possible financing options for project should be available around next year.

¹ https://www.emsd.gov.hk/energyland/en/building/district_cooling_sys/dcs.html

Conclusion

38. The Chairman thanked the Study Team for their presentation and explanations. He welcomed the Study Team to further brief ACE regularly on the progress of the development of KYC Artificial Islands to gauge the views of Members.

Internal Discussion Session (Closed-door session)

Utilisation of land

39. A Member suggested with the support of another Member and the Chairman that public infrastructure such as sewage treatment facilities could be accommodated underground for better utilisation of land spaces. Another Member added that transportation network of multiple levels such as flyovers could be one of the options.

Hong Kong 2030+

40. A Member encouraged the Government to publish the full reports of the Sustainability Assessment for Hong Kong 2030+ and Strategic Environmental Assessment for Hong Kong 2030+ – Feasibility Study for public information as early as possible.

Land Reclamation

41. Two Members suggested that the Study Team should conduct a comprehensive SEA to collect detailed baseline information regarding the ecological impacts on the sites before proceeding to further studies on land reclamation.

42. Considering that reclamation was irreversible, a Member suggested with the support of another Member that the Government should reduce the scale of land reclamation to a bare minimum. The Chairman further suggested that the Government should provide detailed breakdown on the size and land use of the KYC Artificial Islands to justify the scale of reclamation. The Member stressed that reclamation proposals should be based on the findings of the ecological studies.

Ecological Impact

43. A Member considered that the Study Team should provide a detailed account of the ecological impact and propose compensation measures for reclamation, such as the establishment of Marine Park or deploying artificial reefs. The Chairman said that the Study Team would be required to conduct comprehensive assessment of the ecological impact and propose mitigation measures as part of the EIA process. Two Members suggested that innovative and effective compensation measures should be devised for EIA projects that might cause adverse impact on the marine environment.

44. Two Members suggested that the Study Team should identify and address key concerns of the public in order to solicit their support for the project.

Item 4 : Any other business (Closed-door session)

45. A Member concerned about the conservation plan for the proposed development of the Northern Metropolis as announced by the Chief Executive in the 2021 Policy Address. While the overall development plan for the Northern Metropolis should be under the purview of Development Bureau, Mr Simon Chan shared that AFCD would conduct a study on the proposed conservation area of around 2,000 hectares. The Member suggested with the support of the Chairman that AFCD should brief ACE Members on the findings of the consultancy study and the conservation plan for wetlands and nature parks for the development of Northern Metropolis at an appropriate time.

46. A Member suggested organising informal meetings between ACE Members and relevant departments in the future to facilitate the exchange of views for mega projects such as the proposed development of the Northern Metropolis.

47. A Member suggested organising a visit for ACE Members to facilities such as I•PARK. The Chairman further suggested organising a visit to the Hong Kong Offshore Liquefied Natural Gas Terminal upon its commissioning. Secretariat

48. There was no other business for discussion at the meeting.

Item 5 : Date of next meeting (Closed-door session)

49. The next ACE meeting was scheduled for 6 December 2021 (Monday). Members would be advised on the agenda in due course.

**ACE Secretariat
December 2021**